INFLUENCE OF CLASSROOM POPULATION, ATTITUDE ON STUDENTS' ACHIEVEMENT IN BIOLOGY IN SOME SELECTED SECONDARY SCHOOLS: IN OREDO LOCAL GOVERNMENT AREA OF EDO STATE

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL TECHNOLOGY, FACULTY OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY

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CERTIFICATION

We the undersigned certify that the researcher work was carried out by **EMORUWA OYEDELE EXCEL** in the Department of Curriculum and Instructional Technology, Faculty of Education, University of Benin. It is adequate in scope and quality for the partial fulfillment of the requirements for the award of B.Sc (Ed) degree in Biology.

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DEDICATION

This project is dedicated to Almighty God for His love grace and mercy on me throughout my academic pursuit.

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From the depth of the researcher hear, he humbly express my profound gratitude to the Almighty God for His mercy, love, grace and strength for helping me to overcome the flood, rain, wind and enabling me to successfully complete this programme.

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ABSTRACT

The aim of this study is to find out the influence of classroom population, attitude on students 'achievement in Biology in some selected secondary in Oredo Local Government area of Edo state. This study reviewed works of several authors. To guide the study, four research questions were raised which are outlined thus: Does classroom Population of secondary school affect students' achievement in Biology? Does population of classroom affect the achievement of students' in Biology along gender? Does classroom Population influence the formative evaluation of Biology lessons? Does student's attitude influence their academic achievement in Biology?

From these four research questions 20 items were raised in the questionnaire to gather the data for this study and the questionnaire was subject to a test re-test method of reliability and a reliability coefficient of 0.86 was obtained. The data collated were analyzed using the simple percentage and frequency counts.

The findings from the study include: classroom population affects students' achievement; population does not affect the achievement of students' across gender; majority of the population agreed that students' who concentrate more in class perform better than those who do not. And from the findings it can be concluded that that population influence the formative evaluation of Biology lessons and this is as a result of the over populated students whom the teacher cannot manage easily.

CHAPTER ONE
INTRODUCTION

Background to the study

The world is viewed by many as a global village. The advancement in science and technology together with the explosion in Education is very much considered by many as a first step for every human activity. According to Battle (2002) Education plays a vital role in the development of human capital and is linked with an individual well-being and opportunities for better living. Education ensures the acquisition of skills and knowledge that opens windows of opportunities for individuals to increase their productivity and improve their quality of life. This increased productivity in turn leads new sources of earnings which enhances the economic growth of the country. It is the aim of education to make societal and individual differences in all ramification possible, be it locally, regionally, nationwide and even on the global stage. Education cannot accomplish such difference without science and technology. Science is seen by the researcher as an organised body of knowledge, a method of solving problems and it also serves as a research of explanation of natural objectives and phenomena.

Man probably was a Biologist before he was anything else; his own body in health and illness, the phenomena of birth, growth and death of the plants and other animals that gave him food, shelter and clothing undoubtedly were matter of serious concern to man then and even now.

Biology has been defined by several people but one outstanding definition is by Umar (2011) who defined Biology as a natural science that deals with the living world, how the living world is structured, how it functions, what these functions are, how it develops, how living things come into existence, how they react with one another and their environment.

Few sciences have contributed to the philosophy and physical basis of contemporary society than Biology. Biology as a science subject plays important roles in Agriculture, Medicine, Optometry, Biochemistry, Science laboratory, Zoology, Botany genetics, Health science, Food and nutrition, and so on. In spite of the importance of Biology. In Nigeria the achievement of students in senior secondary schools in sciences especially Biology is very appalling. This has been proven true by many reports by this inclusive; the chief examiner, West African examination council reports that in the

year 2008, the total percentage of all the grades awarded was 97.17% of which only 31.29% of the grades fell under (C -A). In the year 2011, the total percentage of all the grades awarded was 97.63% of which only 31.82% of the grades fell under grade (C-A).

The attitude of students' could be seen as the student's disposition towards a subject. To be more scientific attitude could be seen as a scientific approach assumed by an individual for solving, assessing ideas and making decisions.

Academic achievement has been described as the scholastic standing of a student at a given moment, Adeyemi(2011). The scholastic standing could be reviewed in terms of grades or scores obtained in a test. It can be defined as a quantity measure of student's achievement in academic activity or programme, According to Dror (1995), classroom population has become a phenomenon often mentioned in the educational literature as an influence on pupil's feelings and achievement, on administration, quality and school budgets. In his words he noted, that classroom population is almost an administrative decision over which teachers have little or no control. Most researchers start from the assumption that population of the class would

prove a significant determinant of the degree of success of students'. In fact, with the exception of a few, many studies have reported that under ideal situation, classroom population in itself appears to be an important factor. The first issue that calls for immediate clarification is what number of students' should constitute a large group and what should be described as a small group? In describing a small group, Bray (1990) observed that they have few teachers with small pools of talent; offer limited range of subjects and characteristically finding it hard to justify costly investment on libraries their pupils lack competition and interest with relatively few peers as they get stucked with same teacher for an entire school career.

The description appears to be an anti-type of what obtains in large group. Large school/class population on the other hand are often impersonal, having broader curricula with teachers being given wider support, while students' may suffer discipline problems as teachers cannot get to know their students' very easily. They find it easy to stream students' according to ability while commitment to work may stand a test of time. In terms of numerical strength, the National Policy on Education (NPE, 2004) specified 25 in pre-primary, 35 in primary and maximum of 40 in secondary schools. These directives

appear unrealistic in urban areas as a result of high population. From studies conducted, the size of large classes range from 30-336 and small from 8-45 (Kolo, 1991).

The empirical literature on class population and its relationship to academic achievement has been unwieldy and confusing.

According to Jordan (1964), in his analysis of the inter-relationship of intelligence, achievement and Socio-economic status of high schools, concluded that School Location among other variables was directly related to mean achievement level of students in all the sampled subjects. However, the report by some researchers on elementary school pupils revealed that the size of school and length of attendance have little or no effect upon pupils' achievement when educational opportunities are comparable. In his conclusion, he asserted that teachers generally, have definite preference for the size of schools in which they wish to teach and that the larger the population of class, the lower the level of students' achievement will tend to be. The observation which agrees with the findings of Sitkei (1968) and Walberg (1969) that a significant and consistent relationship exist in the achievement of students in small classes of about 1-20 pupils that obtained

higher scores in science tests than their counterparts in large classes are necessary for student achievement.

Expressing a divergent view, Bolton (1988) found that there was no significant difference in, post - test achievement scores between large populated classes and small populated classes control groups; he concluded that larger is sometimes better. Earlier, Keeves (1978) acceded that type of school did not make a contribution to academic achievement, however, Carpenter and Western (1984) found that school type makes a difference in students' academic achievement. Hatis and Spay citing Smith and Glass and Glass et al as a corollary to the above statement indicated through meta-analyses that, compare to larger populated classes, small populated classes lead to higher pupils achievement, more favourable teacher effects (e.g. morale, attitude towards students) greater attempts in individualized instruction, a better classroom climate and more favorable student effects (e.g. self-concept, participation). In another development, Finn and Achilles (1990) observed in a longitudinal analysis of a portion of their large scale experiment (describing Kindergarten and teachers) that students' in small populated classes out-perform their peers in kindergarten classes of regular

size (regular class size here means large populated classes). According to a study conducted in United States, Campbell (1980) remarked that students' from large populated schools were exposed to large number of school activities and the best of them achieved standards that were unequaled by students' in small populated schools. However, he observed that students' in small schools participated in more activities, (both academics and extra-curricular activities). The study concluded that the versatility and achievement of pupils in small populated schools were consistently higher. The assertion made by Campbell appears confusing as he failed to pin-point the one that is more reliable.

In his contribution, Ornstein (1990) discovered that in a 10-year study of high schools in Illinois, the lowest achievement on three separate standard tests occurred in schools with fewer than 495 students'. The highest achievement, however, was found in schools with 495 to 1,280 students.

George (1958) when he reported in his research on high school class rank and academic performance that graduate from high school seem to perform better academically in college when the high school from which the student graduated has a large population graduating class. Edge (1980) identifies

two problems that are posed by large populated class teaching; the provision of an opportunity for discussion or for any kind of oral input to the written work is difficult and; the amount of marking involved can dissuade even the most enthusiastic teacher from setting the amount of written work that he feels would benefit the students.

In another development, a comprehensive study conducted by Glass and Smith (1979) on the relationship between classroom size population and achievement gathered 80 studies, read and separated their results to meta-analysis procedures. He concluded from the results he obtained that reduced classroom size population and greater pupil achievement are related.

Researchers using meta-analysis to integrate research findings of Glass and Smith meta-analytical techniques to describe relationship between classroom size population and academic achievement or classroom processes, their analyses never suggested substantial changes in conclusions originally drawn in Glass and Smith (1979) and Smith and Glass (1980). The Encyclopedia research on classroom size opined that whether the benefits of reducing classroom size are regarded as worth their cost or a second choice in improving education depends almost entirely on how the outcomes of

pupil achievement, pupil's attitude and teacher's satisfaction are weighed in arriving at a general measure of utility. Clearly, different groups of individuals weigh these factors differently. Most tax-payers are likely to minimize considerations of teacher satisfaction and argue that class size reductions are not worth the price.

Teachers are likely to disagree that smaller classes produce more learning and provide the environment in which teachers can become more creative and not burn out so early in their careers.

Statement of the problem

The persistent poor achievement of secondary school students' in Biology could cause serious concern in Educational circle in Nigeria.This could be because Biology could bring about great scientific technological advancement in the country.

The national policy on education (NPE, 2004) stipulates that the maximum teacher to student in pre-primary school ratio is one to twenty-five students, one to thirty five in primary and one to forty in secondary school. The obvious reason for this standard is to ensure that the teacher not only controls the class but also ensure that he understand the learning capabilities

of each of the learner in the class room. Ozochi (2008); affirms that there is a limit to which a teacher can effectively control classroom population; anything more than that according to him will affect the school objectives.

Observably, in most of our secondary schools today the teacher student ratio has gone far beyond the stipulation of the national policy on education, students stay more than fifty in each class, seating arrangement altered, thereby making, teaching and learning difficult which lead to student poor academic achievement. These over bloated class size population could be attributed to the explosion of the population of children of school age.

There is need therefore to identify the influence of classroom population, attitude on students' achievement in Biology some selected secondary schools in Oredo Local Government area of Edo State.

Research questions

In order to effectively guide this study, the following questions were raised:

1. Does classroom Population of secondary school influence students' achievement in Biology?

2. Does population of classroom affect the achievement of students' in Biology along gender?
3. Does classroom Population influence the formative evaluation of Biology lessons?
4. Does student's attitudes influence their academic achievement in Biology?

Hypothesis

H_0: There is no significant difference on the influence of class population of the achievement of Biology students' along gender.

Purpose of the study

The purpose of this study is to investigate, influence of classroom population and attitude on students' achievement in Biology in some selected secondary school. The study is limited to some selected secondary schools in Oredo Local Government area. It also has the following specific aims.

1. To determine whether classroom population of secondary school students' affect their achievement in Biology.
2. To determine whether population affect the achievement of students in Biology across gender.

3. To determine whether classroom population influence the formative evaluation of Biology lesson.
4. To determine whether student's attitudes influence their academic achievement in Biology.

Significant of the study

This study will be of immense benefit to students, teachers, educational planners, government and society at large.

For the students, it will motivate and increase their willingness to attend school and help improve their performance in school.

To the teachers, it will help improve abilities of the teacher to manage the classroom efficiently because reduction in the number of students encourages teacher - students' relationship and leads to effective and efficient academic performance.

To the education planners, it will be a guiding material to enable them check the population of students in relation to the available schools to accommodate them.

To the government, it will serve as a guide to identify the need to improve the infrastructure available for teaching and learning.

The study will be of great significance to the society at large as it will help produce qualified citizens that will contribute positively to the growth of the society and it will also serve as a resource and reference material to future students.

Scope and Limitation of the study

This study is to determine the influence of classroom population and attitude on students' achievement in Biology in some selected secondary at Oredo Local Government area of Edo state. There are numerous factors that can influence students' achievement in Biology. However, this study considered only the influence of population and attitude on student achievement in Biology. Furthermore this study is restricted to Oredo local government Area of Edo state. Where the following schools: redo Girls secondary school, Benin City, Imaguero College, Oba Eware secondary school, Benin City and Itohan Girls Secondary school will be the sampled schools.

Operational definition of terms

Influence: The ability to change or effect something or someone; the power or capacity of causing an effect in indirect or intangible ways.

Classroom: A building or structure constructed for the purpose of organizing students for learning. It is referred to as the heart of any educational system.

Population: Students 'in particular class

Attitude: A predisposition or tendency to respond positively towards a certain idea, object, person or situation. Attitude influence an individual's choice of action and responses to challenge, incentive, and rewards.

Achievement: Something have been done or achieved through effort of a result of hard work, the state or condition of having achieved or accomplished something academically.

CHAPTER TWO

LITERATURE REVIEW

This chapter deals with the review of related literature of the influence of classroom population and attitude on students' achievement in some selected school in Biology

Literature will be review on the following sub – headings:

1. Concept of Biology Education
2. Relevance of Biology to school
3. Concept of classroom population/ teaching and learning.
4. Students' Attitude.
5. Influence of classroom population on academic achievement.
6. Summary.

Concept of Biology education

Biology as a branch of science plays a vital roles in providing knowledge of relevant concepts, scientific skills, environmental and natural phenomena (Nlewen, 2012). It helps to develop science process skills and scientific attitude.

Biology is also a branch of science which has been structured to equip the students' with the knowledge of relevant concepts and scientific skills (onyegegbu, 2002).

Biology is all the knowledge of living things that has come to us from the past. It is therefore the science of life .Education on the other hand is a designed process for training an individual by which knowledge is acquired (Eya, 2010). He opined that it is a vital developmental process which is directly related to the effectiveness of manpower. Biology education is the act of teaching and learning in order to inculcate or transfer the knowledge of Biology to students' (Okenyi, 2012).

Biology education is a process of imparting knowledge, skill and attitudes in Biology to learners at any level. It gives the learner a sound academic knowledge, skill and ample opportunity to apply this knowledge.

Biology education is very important for any growing economy like that of Nigeria. About 70percent graduates of Biology education are self-employed and employer of labour (Okenyi, 2012). Many graduate of Biology education also own school of their own where people work and earn their living while some are into fishery business. These contributions of Biology

to the development of Nigerian's economy will be highly improved through analyzing the problems and prospects of Biology education in Nigeria.

Relevance of Biology to school

The relevance of Biology transcend all definitions and the prosperity of any country depends on where and quality of Biology offered in its school system, Gray and Gupta (2003) conceptualize Biology as one of the master and servant of most science disciplines and thus a source of enlightenment and understanding of nature. He further stated that without it, the understanding of nature and it phenomena would be super fine. The study of Biology has its relative importance in industry, medicine, environment pollution, agriculture and most especially in proper understanding of ourselves.

The study of Biology also helps in the understanding of what goes on within and around us and hence foster self-direction and guidance. Today, pollution has contributed to the health-problems to all life on earth as a result of industrial activities, health problems could be solved with the knowledge and application of Biology principles having indicated some important of

Biology to the nation, it is obvious that for any nation to live a good life, it must internalize the principles of Biology.

The Biology education career assist students' in developing the knowledge, skills values and disposition essential for success in teaching. The Option is designed to meet the academic needs of those students' intending to teach Biology in a public or private senior secondary school.

Concept of classroom population, Teaching and learning

Classroom Population

Class population refers to the number of students' a teacher faces during a given period of instruction. Dozens of studies on classroom population reduction demonstrates its positive impact on student achievement, though a small number of studies attempt to cast doubt on the connection between classroom population and student learning and achievement. According to Blatchford (2003), classroom population is defined as the number of pupils in class with one teacher. In Secondary school, classroom population tends to vary by year group, subject and set. The classroom population experienced by each pupil will therefore vary across their time table. The

number of children in a class may also fluctuate through the year, which affects the classroom population measurement (Blatchford, 2003). In Nigeria, Adeyemi (1998) reported that the average classroom population influences the cost of education while capital cost could be reduced by increasing the average classroom population while Nwadana (2000) argued that the higher the classroom population the lower the cost of education. He contended however, that most classrooms are over-crowded spreading resources thinly and thereby affecting the quality of education.

Project Star (Student/Teacher achievement Ration) the largest experimental study of the effects of classroom population on achievement, defined a small class as a class that has between thirteen (13) and seventeen(17) students and a large class ranged from twenty two(22) to twenty-six (26).

Charleston in Adeniji (2007) define a large class as a class whose number strength does not permit the teacher to cope effectively with the demands of the individual students. The inability of the teacher to do this, has resulted into what Akinsolu and Fadoku(2009), Identify as being responsible for

depressed achievement, negative attitude to work, and Raising the anxiety level of students.

Under California's classroom population reduction programme, most California school districts kept their reduction classrooms population close to 20 students as possible, (Botrnstedt and Stecher,2002). In Blatchford's United Kingdom study, 23 pupils constituted a small class (2003). In Indian prime time study, the average study classroom population for a small class was set at eighteen (18), but actual "small classroom" population range from eighteen (18) to thirty one (31) Class of twenty four (24) were considered small if there was a teacher aid to assists the teacher (Hattie, 2005).

In Nigeria, in terms of numerical strength the national Policy Education (2006) specified twenty five (25) per class in pre- primary schools, thirty five (35) students per class in primary schools and maximum of forty (40) students per class in secondary schools.

Teaching

Teaching can be seen as a process of encouraging students' to make connections between their real world experience and the subject being studied.

It can also be seen as the activities of educating or instructing activities that impart knowledge or skill (Vocabulary.com) Teaching is also seen as the job or profession of a teacher.

Teaching is a process that facilitates learning, in this process the teacher is in central figure, he occupies a position of pre-eminence (Authority) because he acts like catalyst, a facilitator who actively stimulates learning. A good teacher should have a good understanding of the needs of the students' their capabilities in terms of learning. He knows when to intervene during the learning process. The main skill of teaching lies in knowing yours students' what they need as regard and how to teach and ability to know when to intervene.

According to Farrant (1986) a good teacher should possess the following professional skill.

1. He should be able to establish a productive classroom atmosphere, by means of good organisation and carefully planned teaching structures.
2. He should able to create specific kinds of climate settings for different lessons, e.g. serious and business like or relaxed and enjoyed.
3. To create excellent teacher student relations.
4. Welcome and make use of students' ideas as much as possible.
5. Teach in relax manner.
6. Exercise good class control and discipline.

Including a variety of learner's activities in his lessons etc.

It should be noted, that a good teacher should show warmth and enthusiasm in the discharge of his duties, because some studies have shown that teacher enthusiasm for the subject are corrected with students achievements.

In teaching effectively, the presentation and explanation of the lesson matters a great deal. The presentation are most relevant for cognitive and effective objectives. A good explanation and presentation enhances remembering, understanding, responding and valuing.

Learning

Psychologists are of the view that learning is the outcome of experience. Learning can be defined as a relatively enduring change in behaviour or practice. They believe that learning is relatively permanent change in behaviour that is brought about by experience.

Learning is the act of acquiring new, or modifying and reinforcing existing knowledge, behaviours, skills, values or preferences and may involves synthesizing different types of information. Learning occurs when there is a relative permanent change in an individual's knowledge or behaviour due to experience.

The ability to learn is possessed by humans, animals, and some mechanics. Human learning may occur as part of education, personal development or training. It may be goal-oriented and may be aided by motivation.

Learning is the process that cannot be directly observed but inferred or noticed from behavioural changes due to practice. Learning is at time defined as change in an individual caused by experience (driscoll, 2000; Schunk, 2004).

Learning take place in many ways, sometime it is intentional, example is a student acquiring knowledge in the classroom or making use of the internet. Learning can also occur unintentionally, as in the case of a child's reaction to fire. Learning takes place at all time. The problem educator's face is not how to get students to learn. Students are already engaged in learning every day. However, it is how to assist students learn a particular information, skills and concepts this will be used in adult life.

Students' Attitude

A students' intelligence may be a basic tool for learning but the real determinant of his achievement is his attitude; Thus Biology when simplified during teaching are usually fascinating and interesting. But this is only possible when the students' show positive attitude towards such activity. Thus even with adequate facilities and effective teaching, achievement of a students' will be poor as they have not developed the right attitude to the subject. According to Cambridge dictionary attitude is defined as a feeling or opinion about something, or someone or way of behaving that is caused by this. That is students' attitude and interest goes

hand in hand. That is to say if a student is interested in particular subject; he will show positive interest toward the subject. Students' themselves contribute to their poor achievement in Biology. In view of this, students' are the recipient of knowledge, being transmitted by the teachers; their interest become a necessity in the teaching and learning situation.

The attitude of students' to science particularly in Biology, has contributed immensely to their poor academic achievement. Most students' poor performance is due to their careless reading, wrong use of time, poor techniques of answering questioning and poor terminology. Some more of the negative attitudes that students' show still includes; inattentive during a lesson, truancy during classes, absenteeism, bad study habits and incompletion of assignments. These negative attitudes definitely lead to poor achievement. Inattentiveness has played a major role in the contribution to poor achievement, because the amount of content matter a subject comprehends is greatly affected by how much attention that is paid in the process of learning students who attend classes and pay attention to lessons are more likely to perform better in a test or exam.

On study habits, Hassan (2004) observed the study habit of student', accounted for substantial amount of various academic successes in study, on perception of factors of factors of poor academic achievement in Nigerian secondary schools. He asserted that students 'lack of connection during lessons, lack of commitment high rate of truancy , inability to study well, neglect of assignment and pleasure seeking attitude contributes significantly to students' poor achievement.

Abdullahi, and Aninyei(1983) showed that students runway from science subject; mainly because they find the subject especially Biology very difficult, because of its wide curriculum syllabus. It can be said that the effect of success and failure, or poor achievement of students; is dependent on the personality of the students'.

Impart of classroom population on academic achievement

The academic achievement of students is dependent on a number of factors. These factor includes: school structure and organisation, teacher quality curriculum and teaching philosophy (Driscoll, 2003). A lot of issue arrived when the effect of classroom population on academic achievement of

students is mentioned, from lack of effectiveness during the teaching learning process to the assessment process. As a result, number of teachers or non-teaching staff assigned to classes losses interest in school. This is because large class population does not allow individual students to get attention from teachers which invariable leads to frustrating and poor academic achievement (Omofere, 2013).

Classes with large number of students often limited the teachers in terms of demonstration and focus on individual students' he/she is unable to cater for the individual needs of the student. The teacher ends up teaching all the students with special need of the student closer to him, especially those in front row while those behind might not get much from the class. In the end only a group of student benefit from the class, while others are left behind in oblivion and confusion.

Furthermore, large classes may constitute a sort of distraction from the teacher. It is expected that during the process of teaching, the teacher moves around the class in order to get the attention of all students, this might be next to impossible when the class is overcrowded. The teacher might end up

correcting and punishing students for the most part of the class without necessarily covering the lecture exhaustively.

The Concept of Academic achievement could be determined by several factors, Ojiako (2007) defined academic achievement as the total outcomes of one's educational activities. It is seen as the end product of academic work load. Most people know that academic achievement generally refers to how well a student is accomplishing his or her tasks and studies but there are quite a number of factors that determine the level and quality of students' academic achievement. These factors are:

Grades

It is certainly the most well-known indicator of academic achievement, grades is the students' "Score" for their classes and overall tenure. Grades are most often a tallying or average of assignment and test scores and may often be affected by factors such as attendance and instructor opinion of the student as well. Grading systems vary greatly by country and school, common scales include a percentage from 1 – 100 lettering systems from A– F, and grade point Average (GPA) from 0 – 4.0 or above.

Attendance

It would be difficult to perform well in class if the student doesn't attend. In public grade schools, attendance is compulsory and numerous unexcused absences may lead to notifying the students' parents, banning of make-up work for missed assignments and test or direct effect on grades. In extreme instances, parents have even been taken to court and given jail term for their tenant students or wards.

Standardized test

Standardized tests are those that provide a consistent measure of a student's performance with those that take the same test, often nationwide. Standardized test include the Stanford achievement test (SAT), the Stanford binet intelligence scale, and the California achievement test (CAT). As testing procedure and scoring are consistent regardless of where the test is taken, standardized test can provide a more direct representation of the taker's knowledge and aptitude than his or her grade in school.

Extra curriculum activities

Although by definition voluntary, involvement in extra – curriculum activities such as volunteer work, schools and sports, newspapers develop and show-case student initiatives and leadership skills as well as provide insight into the student's interests and priorities. Extra – curricular activities therefore can make a student more attractive to colleges and employers.

Behaviour

Yet another measure of academic achievement is the assessment of the student's behavior while in school. Grade schools often have strict guidelines for student behavior, and violations such as academic dishonesty (cheating and plagiarism) and class disruption can lead to disciplinary action. Delran School District in New Jersey for example, cites several different types of detention and suspension for student misconduct in its 2009 guidelines.

Summary

Classroom population is an important element in the teaching and learning process. The population of the class goes a long way to determine how effective the teaching and learning process can be.

It also goes a long way to influence the teacher's ability in managing and controlling the class (classroom management). Class size also affect academic achievement of students, from research it was discovered that the smaller the class the better the student's performance and the larger the class the poorer the student's performance.

In order to curb all these problems, the federal government through the national policy on education, stated that the government will bear in mind the teacher pupil ratio of 1:25 (pre-primary) and 1:35 (primary) and 1:40 (secondary) as a target for near future. Also the class size reduction programmed was recommended.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter describes the procedures adopted by the researcher while conducting the research work. This chapter is described under the following heading:

1. Design of the study
2. Population of the study

3. Sample and sampling techniques
4. Research instrument
5. Validity of instrument
6. Reliability of the instrument
7. Method of data collection
8. Method of data analysis

Design of the study

This study is designed to investigate, influence of classroom population, attitude on students' achievement in Biology in some selected secondary schools in Oredo Local Government area of Edo State. The study will make use of the descriptive survey research design.

Population of the study

The targeted population of the study comprised of all the senior secondary school two (SSS2) students' in the selected senior Secondary schools which

means fifty participants from each of the sample students' in Oredo local government area of Edo State

Sample and Sample Technique

The sample of the study consist of two hundred (200) senior secondary school class two students'(SSS2)in the selected secondary school in Oredo Local Government Area of Edo State. Which mean fifty participants from each of the sampled schools. Simple random technique was used to select the sample from the target population. The following are the names of the four schools:

1. Oredo Girls secondary school Benin City
2. Imaguero college
3. Oba Eware secondary school, Benin City
4. Itohan Girls Secondary school

Research Instrument

The research instrument that was used in collecting data from the respondent is the questionnaire. The questionnaire consisted of two parts.

The first section (section A) was used to collect bio-data. Section (section B) contain of questions bordering on influence of classroom population, students' attitude on academic achievement in Biology structure to get information on the raised reached questions.

Validity of the instrument

The instrument was designed by the researcher and subjected to careful security by the project supervisor and three other experts from the department of Curriculum and Instructional Technology to ensure its validity.

Reliability of the instrument

The instrument was tested for reliability with the use of test–re-test method. The questionnaire was administered first to fifty students' in schools that are not part of the sample and after five days interval same questionnaire was also administered to the same set of students. Using the Pearson Product of Moment Correlation and a coefficient result of 0.72 was obtained which showed that the instrument is reliable enough for the study.

Method of Data collection

The administration of the questionnaire was personally done by the researcher by giving out the questionnaire forms to the students' individually and waited patiently to collect them in order to prevent loss.

Method of Data Analysis

The data collected from the respondents was answered using the simple percentages and frequency counts

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSION OF FINDINGS

This chapter presents the analysis of the data collected. The purpose of this research was to find out influence of classroom population, attitude on students' achievement in Biology in some selected secondary in Oredo Local Government area of Edo state. The questionnaire was distributed to Two hundred (200) respondents who are secondary school students in Oredo Local Government Area

SECTION B:

Research Question 1: Does classroom Population of secondary school affect students' achievement in Biology?

S/NO	ITEMS	RESPONSES								TOTAL RESP.	TOTAL %
		STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE			
		FREQ	%	FREQ.	%	FREQ.	%	FREQ.	%		
1.	It is very hard to concentrate in a densely populated class	35	17.5	70	35	45	22.5	50	25	200	100
2.	An overcrowded class affects the teacher-student relationship	80	40	40	20	60	30	20	10	200	100
3.	Teachers control of populated class to improve on student's achievement is limited populated class	65	32.5	59	29.5	40	20	36	18	200	100
4.	The Students' benefit more in less populated class than in a large populated class	35	17.5	25	12.5	55	27.5	85	42.5	200	100
5.	Students' do not concentrate in large class due to several distractions	40	20	75	37.5	60	30	25	12.5	200	100

From the table above, it is seen that in item 1, 17.5% of the respondents strongly agreed that it is very hard for students to concentrate in a large populated class, 35% agreed, 22.5% disagreed while 25% strongly disagreed. This indicates that majority of the sampled population agreed that it is very hard for students to concentrate in a large populated class. In item 2, 40% of the sampled population strongly agreed, 20% agreed, 30% disagreed while the remaining 10% strongly disagreed that an overcrowded class affects the teacher-student relationship. This indicates that an overcrowded class affects the teacher-student relationship.In item 3, 32.5% of the sampled respondents strongly agreed that teachers' control of populated class to improve on student's achievement is limited, 29.5% agreed, and 20% of the population disagreed while 18% strongly disagreed. This shows that majority of the respondents agreed that teachers control of populated class to improve on student's achievement is limited.In item 4, it can be seen that 17.5% of the population strongly agreed, 12.5% of the population agreed, 27.5% of the population disagreed while 42.5% of the population strongly disagreed. This indicates that majority of the sampled respondents do not agree that the Students' benefit more in less populated class than in a large populated class.

In item 5, 20% of the sampled population strongly agreed, 37.5% of the population agreed, 30% of the population disagreed while the remaining 12.5% of the population strongly disagreed. This shows that majority of the sampled respondents agreed that 1.

From the above analysis, it can be seen that classroom population affects students' performance, and this is based on the responses from the respondents

Research Question 2: Does population of classroom affect the achievement of students' in Biology along gender?

S/NO	ITEMS	RESPONSES								TOTAL RESP.	TOTAL %
		STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE			
		FREQ	%	FREQ.	%	FREQ.	%	FREQ.	%		
6.	Classroom population affects male and female the same way	70	35	40	20	53	26.5	37	18.5	200	100
7.	Gender have influence on student attitude academic	15	7.5	45	22.5	80	40	60	30	200	100

	achievement in over populated class										
8.	Male students' perform more better than female students' in a large populated classroom than in a small populated classroom	**22**	**11**	**62**	**31**	**98**	**49**	**24**	**12**	**200**	**100**
9.	Female students' participate more better than male students in a large populated class	**25**	**12.5**	**75**	**37.5**	**50**	**25**	**50**	**25**	**200**	**100**
10.	Male students have more opportunities than female students in a large populated class.	**30**	**15**	**60**	**30**	**101**	**50.5**	**9**	**4.5**	**200**	**100**

From the analysis, it can be seen that in item 6, 35% of the sampled population strongly agreed, 20% agreed, 26.5% of the respondents disagreed while the remaining 18.5% strongly disagreed. This clearly indicates that majority of the sampled respondents agreed that classroom population affects male and female the same way. In item 7, 7.5% of the sampled respondents strongly agreed, 22.5% agreed, 40% disagreed while the remaining 30% of the respondents strongly disagreed. This clearly indicates that majority of the sampled respondents disagreed to the assertion that gender have influence on student attitude academic achievement in over

populated class. In item 8, 11% of the respondents strongly agreed, 31% agreed, 98% disagreed while the remaining 12% of the sampled respondents strongly disagreed. This clearly indicates that majority of the sampled respondents do not agree to the assertion that Male students' perform better than female students' in a large populated classroom than in a small populated classroom. In item 9, 12.5% of the respondents strongly agreed, 37.5% of the respondents agreed, 25% disagreed, while the remaining 25% strongly disagreed that female students' participate better than male students in a large populated class. In item 10, it can be seen that 15% of the sampled respondents strongly agreed, 30% agreed, 50.5% disagreed while 4.5% of the sampled respondents strongly disagreed to the assertion that male students have more opportunities than female students in a large populated class.

From the analysis, it can be seen that in answer to research question 2, population does not affect the performances of students along gender.

Research Question 3: Does classroom Population influence the formative evaluation of Biology lessons?

S/NO	ITEMS	RESPONSES								TOTAL RESP.	TOTAL %
		STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE			
		FREQ	%	FREQ	%	FREQ	%	FREQ	%		
11.	Regular formative evaluation is impossible in a large class population	52	26	49	24.5	96	48	3	1.5	200	100
12.	Evaluation of students' outcome in large populated class is tedious to teachers.	70	35	45	22.5	65	32.5	20	10	200	100
13.	Class population have direct influence on students' formative evaluation	40	20	65	32.5	45	22.5	50	25	200	100
14.	It is easier to evaluate students' in a small populated classes than in large classes	80	40	41	20.5	60	30	19	9.5	200	100
15.	Evaluation of students' in large classes is time consuming and burdensome	65	32.5	73	36.5	22	11	40	20	200	100

From the above table, it can be seen that in item 11, 26% of the sampled respondents strongly agreed, 24.5% of the respondents agreed, 48% of the respondents disagreed while the remaining 1.5% of the respondents strongly disagreed. This indicates that majority of the sampled respondents agreed that Regular formative evaluation is impossible in a large class population. In item 12, it is seen that 35% of the respondents strongly agreed, 22.5% agreed, 32.5% of the respondents disagreed while 10% of the respondents strongly disagreed that evaluation of students' outcome in large populated class is tedious to teachers. In item 13, it is clearly seen that 20% of the respondents strongly agreed, 32.5% of the respondents agreed, 22.5% of the respondents disagree while the remaining 25% of the respondents strongly disagreed. This shows that majority of the sampled respondents agreed that class population have direct influence on students' formative evaluation. In item 14, it can be seen that 40% of the respondents strongly agreed, 20.5% of the respondents agreed, 30% of the respondents disagreed while the remaining 9.5% of the sampled respondents strongly disagreed. This indicates that majority of the sampled respondents agree that it is easier to

evaluate students' in a small populated classes than in large classes. In item 15, 32.5% of the respondents strongly agreed, 36.5% of the respondents agreed, 11% of the respondents disagreed while the remaining 20% of the respondents strongly disagreed. This shows that majority of the sampled respondents agreed that evaluation of students' in large classes is time consuming and burdensome.

Therefore, in reply to research question three, it is seen that classroom Population influence the formative evaluation of Biology lessons.

Research Question 4: Does student's attitude influence their academic achievement in Biology?

S/NO	ITEMS	RESPONSES								TOTAL RESP.	TOTAL %
		STRONGLY AGREE		AGREE		STRONGLY DISAGREE		DISAGREE			
		FREQ	%	FREQ.	%	FREQ.	%	FREQ.	%		
16.	Nonchalant attitude affects students' academic performance	30	15	85	42.5	45	22.5	40	20	200	100
17.	Absenteeism affects student's academic	40	20	82	41	40	20	38	19	200	100

	performance in class										
18.	Lack of concentration of students affects their academic performance	**65**	**32.5**	**43**	**21.5**	**32**	**16**	**62**	**31**	**200**	**100**
19.	Most Students have low interest in Biology and thus it affects their academic performance.	**45**	**22.5**	**89**	**44.5**	**26**	**13**	**40**	**20**	**200**	**100**
20.	Students who concentrate more in class perform better than those who do not.	**80**	**40**	**65**	**32.5**	**35**	**17.5**	**20**	**10**	**200**	**100**

From the data collected, it is seen that in item 16, 15% of the respondents strongly agreed, 42.5% of the respondents agreed, 22.5% of the respondents disagree while 20% of the respondents strongly disagree. This clearly indicates that majority of the respondents agreed that nonchalant attitude affects students' academic performance. In item 17, it is seen that 20% of the respondents strongly agreed, 41% agreed, 20% disagree while the remaining 19% of the respondents strongly disagree. This clearly indicates that majority of the respondents agreed that absenteeism affects student's academic performance in class. In item 18, it can be clearly seen that 32.5% of the respondents strongly agreed, 21.5% agreed, 16% disagree while 31%

of the respondents strongly disagreed. This shows that majority of the respondents agreed that lack of concentration of students affects their academic performance. In item 19, 22.5% of the sampled respondents strongly agreed, 44.5% of the respondents agreed, 13% of the respondents disagree while the remaining 20% strongly disagreed. This shows that majority of the sampled respondents agreed that most Students have low interest in Biology and thus it affects their academic performance. In item 20, 40% of the respondents strongly agreed, 32.5% of the respondents agreed, 17.5% of the respondents disagree while 10% of the sampled respondents strongly disagreed. This shows that majority of the respondents agree to the assertion that students who concentrate more in class perform better than those who do not.

Hypothesis Testing

The results of the test of the study were presented in the below and subsequently analysed accordingly.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.870[a]	2	.001
Likelihood Ratio	2.104		.001
N of Valid Cases	.200		.

From the above chi-square results in Table 4.1, the p-value is .001, which is lesser than the set value of 0.05 showing that there is a significant difference on the influence of class population on the academic performance of Biology students. This implied that the hypothesis that there is no difference on the influence of class population on the academic performance of Biology students should be rejected.

Discussion of Findings

From the data collated and analysed, the following are the findings:

In research question 1, it can be seen that classroom population affects students' achievement, and this is based on the responses from the respondents and this is in conformity with Adeniji (2007) define a large class as a class whose number strength does not permit the teacher to cope

effectively with the demands of the individual students. The inability of the teacher to do this, has resulted into what Akinsolu and Fadoku(2009), Identify as being responsible for depressed achievement, negative attitude to work, and Raising the anxiety level of students. Large classes may constitute a sort of distraction from the teacher. It is expected that during the process of teaching, the teacher moves around the class in order to get the attention of all students, this might be next to impossible when the class is overcrowded.

In research question two, it is clearly seen that population does not affect the performances of students along gender. And this goes in conformity with the works of Akintunde (2007) that Gender is one of such factors also mentioned in literature to have considerable effects on students' academic performances especially in science subjects. Gender is the range of physical, biological, mental and behavioural characteristics pertaining to and differentiating between the feminine and masculine (female and male) population. The importance of examining performance in relation to gender is based primarily on the socio-cultural differences between girls and boys.

In research three, it is seen that classroom Population influence the formative evaluation of Biology lessons and this shows that Classes with large number of students often limited the teachers in terms of demonstration and focus on individual students' he/she is unable to cater for the individual needs of the student. The teacher ends up teaching all the students with special need of the student closer to him, especially those in front row while those behind might not get much from the class. In the end only a group of student benefit from the class, while others are left behind in oblivion and confusion.

In research question four, it is seen that majority of the population agreed that students who concentrate more in class perform better than those who do not. And this goes in conformity with Hassan (2004) who observed the study habit of student', accounted for substantial amount of various academic successes in study, on perception of factors of factors of poor academic achievement in Nigerian secondary schools. He asserted that students 'lack of connection during lessons, lack of commitment high rate of truancy , inability to study well, neglect of assignment and pleasure seeking attitude contributes significantly to students' poor achievement.

CHAPTER FIVE

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATION

Summary

This study was aimed at finding out the influence of classroom population and attitude on students' achievement in Biology in some selected

secondary at Oredo Local Government area of Edo state. This study reviewed works of several authors.

To guide the study, four research questions were raised which are outlined thus:

1. Does classroom Population of secondary school affect students' achievement in Biology?
2. Does population of classroom affect the achievement of students' in Biology along gender?
3. Does classroom Population influence the formative evaluation of Biology lessons?
4. Does student's attitudes influence their academic achievement in Biology?

Furthermore, one hypothesis' was tested:

H_0: There is no significant difference on the influence of class population of the achievement of Biology students' along gender.

From these four research questions were 20 items raised to gather the data for this study as well as the findings which included:

Findings

- classroom population affects students' performance as it was exposed that a large class is not easy students do not concentrate in large class due to several distractions, Students' benefit more in less populated class than in a large populated class, teachers control of populated class to improve on student's achievement is limited, overcrowded class affects the teacher-student relationship and most students cannot concentrate in a large populated class.
- population does not affect the performances of students along gender and this was further proven as majority of the sampled respondents agreed that classroom population affects male and female the same way, that gender does not have influence on student attitude academic achievement in over populated class, that Male students' perform better than female students' in a large populated classroom than in a small populated classroom, female students' do not participate better than male students in a large populated class.

- Population influence the formative evaluation of Biology lessons as Regular formative evaluation is impossible in a large class population, that evaluation of students' outcome in large populated class is tedious to teachers, population have direct influence on students' formative evaluation it is easier to evaluate students' in a small populated classes than in large classes.
- majority of the population agreed that students who concentrate more in class perform better than those who do not as it was seen from the study that nonchalant attitude affects students' academic performance, absenteeism affects student's academic performance in class, that lack of concentration of students affects their academic performance, most students have low interest in Biology and thus it affects their academic performance.

Conclusion

From the analysis carried out in the study, it can be concluded that;

Classroom population affects students' performance as population does not affect the performances of students along gender. Furtherance to this, it can be concluded that population influence the formative evaluation of Biology

lessons and this is as a result of the over populated students whom the teacher cannot manage easily, that students who concentrate more in class perform better than those who do not and this is as a result of the fact that they do not allow other students to make them loose concentration.

Recommendations

The following under listed are recommended based on the findings and conclusion of the study:

1. The government should employ more hands of teachers and spilt large classes to decongest the large classes and enable the teachers attend to the students individually.
2. Schools should limit the number of students they admit in a particular term or session to eradicate the issue of over populated classes.
3. Government and Educational planners should ensure that they create possibly large classes with the available basic infrastructures that enhance learning.

REFERENCES

Adeniji (2007) the large class and effective instruction. Educational Review, 22, 1, 38-44, classes.' London: Macmillan Publishers

Akinsolu and fadoku (2009), Teachers and students academic Dissertation 30(9), 357.

Abdullahi, and Aninyei (1983) Interrelationship between Personal Factor and Academic

Adeyemi, J.K (2011). Costs in Education" in Educational management for sub-Saharan Africa,

Bray, M. (1990). School Location in the International Encyclopaedia of Education. Husen T, Postlethwaile, T.N. (Eds) Great Britain

Battle, (2000). Tracking, Expectations, and the Transformation of Vocational Education

Blatchford, P., Bassett, P., & Brown, P. (2003). Examining the effect of class size on classroom engagement and teacher-pupil interaction: Differences in relation to pupil prior attainment and primary vs. secondary schools. Learning and Instruction, 21(6), 715-730. doi:10.1016/j.learninstruc.2011.04.001

Bray, (1990). School location in the international Encyclopeadia of Education. Husen T, Postlethwaile, T.N.(Eds) Great Britain.

Bolton, J.K. (1988). Larger is Sometimes Better Approach to the Smaller classes A paper presented at the Annual Convention of Teachers of English to Speakers of the Languages. Chicago, Illinois.

Bohrnstedt, G.W. &stecher, B.M. (2000). What we have learned about class reduction California Department of Education: Sacramento CA. Resnick, L(Ed). (2003). Class Size: Counting Kids can count American Educational Research association, 1(2),1-4.

Charleston M.M. (1976). The large class and effective instruction. Educational Review, 22, 1, 38-44, classes.' London: Macmillan Publishers.

Campbell, R.N. (1980). The Oral Approach with large Classes Language Learning, Vol. X, No. 122, pp.41-46.

Carpenter, P.G. and Western J.S. (1984). The Process of Academic Achievement. Educational Research and Perspectives, 11(2), 63-79.

Adeyemi, J.K (2011). Costs in Education" in Educational management for sub-Saharan Africa,

Dror, Y. (1995). School Location as a Function of Uniqueness, Autonomy Integration and Comprehensiveness: A Historical Model with current Implication. Journal of Education Administration and History, 27 (1)1

Edge, J. (1980). Teaching Writing in Language Classes" ELT Journal Education: A harvest of Crisis in National Concord Tuesday, 17, 1996, P.19 xxxiv(2), 146-148.

Egbochuku, E .O. (2000). The Learning process in E.O Egbochuku(Eds) Learning and Teaching DEVELOPMENT PSYCHOLOGY (PP.105)

George, A.K. (1958). High School Class rank and Academic performance in College. *Dissertation Abstract international*, 20 (9), 3575.

Glass, G.V (1978) and smith, M.L. (1980). Meta-analysis of Research on Class Size and Achievement. Educational Evaluation and Policy Analysis, 1, 2-16.

Hassan, (2004), Achievement in Mathematics of Ebira Secondary School Students in Kogi State. Ife Psychology an International Journal, 5(1), 2013, 154-155. Retrieved June 15

Farrant (1986). Principles and practice of Education (Tenth Impression Singapore Longman.

Federal Republic of Nigeria (2004). National Policy on Education. 4th Edition, Lagos; NERDC.

Finn, J.D. and Achilles, C.M. (1990). Answers and questions about class Size: A state-wide Experiment. American Educational Research Journal, 27 (3), 557-577.

George, A.K. (1958). High School Class rank and Academic performance in College. Dissertation Abstract international, 20 (9), 3575.

George, A.K. (1958). High School Class rank and Academic performance in College. Dissertation Abstract international, 20 (9), 3575.

Glass, G.V and smith, M.L. (1979). Meta-analysis of Research on Class Size and Achievement. Educational

Hattie, J. (2005, May). The Paradox of reducing class size and improving learning outcomes. Keystone presentation at the international conference on class size, University of Hong Kong Class size and students Mathematic Achievement of Senior Secondary schools in South Western Nigeria.

Keeves, J.P. (1978). Approaches to the Goal of Educational Equality in Renewal of Australian Schools: A changing perspective in Educational Planning. In J.V.D. Crus and P.J Sheehan (eds), Melbourne ACER, 92-107.

Kolo, (1991). Relative effects of class size, Social Educational Background and Attitude on Oral English

National policy on Education (2004).4th ed, Federal Republic of Nigeria, NERDC Press, Ijaba, Lagos- Nigeria.

Nlewem, S.U. (2012) Biology Teaching in Nigeria. Lagos Government Press.

Ojiako, L.M (2007). History of Education. Enugu: Mac angel Publishers.

Okenyi, C.I. (2012). Science and Technology Education for Entrepreneurship development,Proceedings of the 7th National Conference of Sciences FCEE PP. 15 19.

Omofere, T. (2013). The influence of peer group on adolescents' academic performance: A case study of some selected schools in state. Ogun: Ego Booster Publishers

Ornstein, A.C. (1990). How BIG should Schools and Districts Be? The Education Digest, 56(2).

Philias Olatunde (2011).Class Size and Academic Achievement of Secondary School in Ekiti State, Nigeria.

Jordan, (1964). Analysis of the Interrelationship of Intelligence, Achievement and Socio Economic Status in selected Population of High School. Dissertation Abstract International, 25(2).ficiency in Nupe Students. Unpublished Ph.D Thesis, University of Ibadan.

(Schunk, (2004) the application of scaffolding (levels of cognitive function), (2), 146-148.

Sitkei, E.G. (1968). The Effect of Class Size: A Review of Research. Washington, D.C.

Umar (2011) Apply ecology and environmental science (2011); 6(1):31-34.

Walberg, H.J. (1969). The Social Environment as a Mediator of Classroom Learning. Journal of Educational Psychology, p.60.

West African Examination Council (2008). Annual report, (May/June). Lagos: *Federal Ministry of Education.*

APPENDIX I

QUESTIONNAIRE

DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL TECHNONLOGY, (CIT)

FACULTY OF EDUCATION

UNIVERSITY OF BENIN, BENIN CITY

TOPIC: INFLUENCE OF CLASSROOM POPULATION, ATTITUDE ON STUDENTS'ACHIEVEMENT IN BIOLOGY IN SOME SELECTED SECONDARY SCHOOLS IN OREDO LOCAL GOVERNMENT AREA.

Dear Respondents,

The purpose of this questionnaire is purely designed to examine "Influence of classroom population, attitude on students' achievement in Biology in some selected secondary schools in Oredo Local Government area of Edo state". I humbly appeal for your maximum co-operation in responding honestly to the questions where necessary. All information given will be treated with utmost confidentially.

Yours faithfully,

……

EMORUWA OYEDELE EXCEL

.

SECTION A

Name of school:……

Subject Taught:……

Class: SS2

Age range 13-20 ( )

SECTION B

Instruction: To each statement, indicate your choice by **(√)** in the given column

Key: SA –Strongly Agree, A- Agree, D- Disagree, SD –Strongly Disagree

S/NO	ITEMS	SA	A	D	SD
	Does classroom Population of secondary school influence students' achievement in Biology?				
1.	It is very hard to concentrate in a densely populated class				
2.	An overcrowded class affects the teacher-student relationship				
3.	Teachers control of populated class to improve on student's achievement is limited				
4.	The Students' benefit more in less populated class than in a large populated class				
5.	Students' do not concentrate in large class due to several distractions				
	Does population of classroom affect the achievement of students' in Biology along gender?				
6.	Classroom population affects male and female the same way				
7.	Gender have influence on student attitude academic achievement in over populated class				
8.	Male students' perform more better than female students' in a large populated classroom than in a small populated classroom				
9.	Female students' participate more better than male students in a large				

	populated class				
10.	Male students have more opportunities than female students in a large populated class.				
	Does classroom Population influence the formative evaluation of Biology lessons?				
11.	Regular formative evaluation is impossible in a large class population				
12.	Evaluation of students' outcome in large populated class is tedious to teachers.				
13.	Class population have direct influence on students' formative evaluation				
14.	It is easier to evaluate students' in a small populated classes than in large classes				
15.	Evaluation of students' in large classes is time consuming and burdensome				
	Does student's attitude influence their academic achievement in Biology?				
16.	.Nonchalant attitude affects students' academic achievement.				
17.	Absenteeism affects student's academic achievement in class.				
18.	Lack of concentration of students affects their academic achievement.				
19.	The attitude of Biology students' affects their achievement in biology.				
20.	Students who concentrate more in class perform better than those who do not.				

APPENDIX II

Reliability Statistics

Cronbach's Alpha	N of Items
.72	20

The coefficient value of 0.72 is a very high value which indicates that the research instrument is highly consistent and reliable for further analysis in the study.